## REMARKS

This application has been reviewed in light of the Office Action mailed on February 13, 2004. Claims 1-22 are pending in the application with Claims 1, 11 and 20 being in independent form. By means of the present amendment, Claims 1, 4, 11 and 20 have been amended. . No new matter or issues are believed to be introduced by the amendments.

Applicant appreciates the courtesy granted to Applicant's attorney, Michael A. Scaturro (Reg. No. 51,356), during a telephonic interview conducted on May 10, 2004. During the telephonic interview, the pending claims and outstanding rejections were discussed. During the interview, Applicant's attorney provided reasons distinguishing Claim 1 over Miller et al. and provided the Examiner with a proposed amendment (verbally) patentably distinguishing Applicants' invention over Miller et al.. Applicant's attorney also provided the Examiner with proposed amendments (verbally) to Claims 20 and 22. Each of the proposed amendments are incorporated in the present amendment in substantially the same form as recited during the telephone conference.

In the Office Action, Claims 11, 20 and 22 were rejected under 35 U.S.C. §112, second paragraph. Claims 11, 20 and 22 have been amended in a manner which is believed to overcome the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 1-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,556,959 issued to Miller et al. on April 29, 2003 ("Miller et al.") in view of U.S. Patent No. 4,092,716 issued to Berg et al. on May 30, 1978 ("Berg et al.").

Independent Claim 1 has been amended herein to better define Applicants' invention and to patentably distinguish Applicants' invention over Miller et al. in view of Berg et al. Claim 1 now recites limitations and/or features which are not disclosed or suggested by Miller et al. and Berg et al., taken alone or in combination.

It is respectfully submitted that at least the limitations and/or features of Claim 1 which are underlined below are not disclosed or suggested by Miller et al. and Berg et al., taken alone or in combination.

In particular, Claim 1 recites:

> 1. A system for detecting a potential virus in a control script, comprising:
> a modeling system that is configured to create a model of a control system, based on a network description corresponding to a control structure described by said control script, said network description comprising a combination of control and controlled devices and their interconnections, and
> a rendering system that is configured to provide a visual representation of the model of the control system, wherein said visual representation facilitates the detection of said potential virus to a user. [Emphasis Added]

The present invention is based on the observation that distinguishing between a "proper" and "aberrant" control behavior effected via a script is difficult, if not impossible, to determine algorithmically, or based on signatures or other characteristics. To overcome this drawback, the present invention allows a user to distinguish between proper and aberrant control behavior via a visual representation of the information contained in a suspect control script. In accordance with the invention, a modeling system creates a model of a control system based on a network description corresponding to a control structure described by the suspect control script. The model is delivered to a rendering system which produces an image for display on a display device. The visual display assists the user in detecting a potential virus in the suspect control script. For

example, if in a visual presentation, a link is shown between a garage door opener and a telephone, an observant user will detect a potential problem that requires further investigation, or the deletion or modification of the script.

Miller et al. is directed to the development and updating of a manufacturing model that incorporates control methods defined and performed in computer scripts written for each of the semiconductor manufacturing tools involved in the control system. The computer scripts of Miller are simply incorporated into the manufacturing model as constituent elements. Miller et al. does not disclose or suggest *creating a model of a control system, based on a network description corresponding to a control structure described by said control script, said network description comprising a combination of control and controlled devices and their interconnections*, as recited in Claim 1.

The key distinction between the present invention, as recited in claim 1, and Miller et al., may be further exemplified by way of a general example. It is maintained that the derivation of an entity (e.g., B) from another entity (e.g., A) is distinct from the construction of an entity (e.g., E) from one or more constituent entities (e.g., A, B, C and D). Reasoning from the general to the particular, Miller et al. teaches the construction of an entity E, i.e., a manufacturing model, as being comprised, in part, from constituent entities (A, B, C and D), i.e., computer scripts. While the present invention is directed to the derivation of an entity B, i.e., a control system model, from an entity A, i.e., the suspect control script. Construction, on the one hand, entails building a model as a sum of its parts, while derivation, on the other hand, some function(s) that provide an output or result from an input. In this case, the output, i.e., model, is derived from the input, i.e.,

control script, via a function that involves forming a network description corresponding to a control structure described by the suspect control script.

Berg et al. does not cure the deficiencies of Miller et al. Berg et al. is cited by the Examiner only for teaching a visual representation of the model as recited in Claim 1 or the standards recited in claim 4 and 13.

It is therefore respectfully submitted that Claim 1 recites limitations and/or features which are not disclosed or suggested by Miller et al. and Berg et al., alone, and in combination and should overcome any prima facia rejection under 35 U.S.C. § 103(a).

Claims 2-10 depend from independent Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 2-10 are believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 1-2 and 4-6 are respectfully requested.

Claim 11, as amended, recites similar subject matter as Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claim 11 is believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) with respect to Claim 11 and allowance thereof is respectfully requested.

Claims 12-19 depend from independent Claim 11 and therefore contain the limitations of Claim 11. Hence, for at least the same reasons given for Claim 11, Claims 12-19 are believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 11-19 are respectfully requested.

Claims 20-22 were rejected under 35 U.S.C. § 103(a) over Tantry (U.S. Patent 5,398,336).

Independent Claim 20 has been amended herein to better define Applicants' invention and to patentably distinguish Applicants' invention over Tantry.

It is respectfully submitted that at least the limitations and/or features of Claim 20 which are newly added and underlined above are not disclosed or suggested by Tantry.

Claim 20 is directed to an ancillary aspect of the anti-virus modeling system of the invention. The method of Claim 20 is directed to facilitating the purchase of items and services. An optional feature of the modeling system of the invention is a provision whereby a user provides details of the user's existing system, to place the suspect control script in context, as required. This additional information about the user's system may then be provided to marketing, sales, or service personnel at other vendors. This information is generally used to create or augment a customer database that can be arranged and accessed for demographic, advertising and other purposes, to facilitate a marketing or sales process. The service provider and vendors subsequently communicate with the user, in an attempt to facilitate the purchase of other services and devices, based on a knowledge of the user's existing system.

Tantry is directed to an object-oriented architecture for a factory floor management software system. Factory floor entities are modeled as factory floor objects within a relational database. Application servers are provided to process application service requests and generate database service requests in response.

It is obvious, therefore, that Tantry is not directed to creating a demographic model from the obtained inventory of user equipment to provide targeted advertising to the user;

and communicating with the user to facilitate the purchase of said items and/or services based on the demographic model, as recited in Claim 20.

Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claim 20 and allowance thereof is respectfully requested.

Additionally, Claims 21-22 depend from independent Claim 20 and therefore contain the limitations of Claim 20. Hence, for at least the same reasons given for Claim 20, Claims 21-22 are believed to be allowable over Tuntry. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claims 20-22 and allowance thereof is respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-22, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Dicron Halajian, Esq., Intellectual Property Counsel, Philips Electronics North America Corp., at 914-333-9607.

Respectfully submitted,

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